In the Claims

Please replace all prior versions, and listings, of claims in the application with the following complete claim set showing canceled claims, new claims, and marked up claims with insertions indicated by underlining and deletions indicated by strikeouts and/or double bracketing.

1. (Original): A method for reducing lung volume in a patient, the method comprising:

(a) advancing a bronchoscope into a region of the lung targeted for reduction; and

(b) introducing material into the targeted region through the bronchoscope to reduce the volume of the targeted region.

2. (Original): The method of claim 1, wherein the material introduced through the bronchoscope induces collapse of the targeted region; promotes adhesion between one collapsed portion of the lung and another; and promotes fibrosis in or around the collapsed region of the lung.

3. (Original): The method of claim 2, wherein the material comprises fibrin or fibrinogen.

4. (Original): The method of claim 3, wherein the material further comprises a polypeptide growth factor.

5. (Original): The method of claim 4, wherein the polypeptide growth factor is a fibroblast growth factor or a transforming growth factor beta-like (TGF β-like) polypeptide.

6. (Original): The method of claim 3, wherein the material further comprises a component of the extracellular matrix (ECM) or an ECM-like substance.

7. (Original): The method of claim 6, wherein the component of the ECM comprises hyaluronic acid (HA), chrondroitin sulfate (CS), or fibronectin (Fn).

8. (Original): The method of claim 6, wherein the ECM-like substance comprises poly-L-lysine or a peptide consisting of proline and hydroxyproline.

9. (Original): The method of claim 3, wherein the material further comprises an agent that causes vasoconstriction.

10. (Original): The method of claim 9, wherein the agent that causes vasoconstriction is an endothelin, epinephrine, or norepinephrine.

11. (Original): The method of claim 3, wherein the material further comprises a proapoptotic agent.

12. (Original): The method of claim I 1, wherein the pro-apoptotic agent is sphingomyelin, Bax, Bid, Bik, Bad, Bim, caspase-3, caspase-8, caspase-9, or annexin V.

13. (Original): The method of claim 1, wherein, prior to introducing material into the targeted region, the region is collapsed by blocking air flow into or out of the region.

14. (Original): A method for performing lung volume reduction, the method comprising:
(a) collapsing a region of the lung;
(b) adhering one portion of the collapsed region to another; and
(c) promoting fibrosis in or around the collapsed region of the lung.

15. (Original): The method of claim 14, wherein the method is performed using a bronchoscope.

16. (Original): The method of claim 14, wherein collapsing a region of the lung is achieved by administering a substance that increases the surface tension of fluids lining the alveoli in the targeted region.

17. (Original): The method of claim 16, wherein the substance is fibrinogen.

18. (Original): The method of claim 16, wherein the substance is fibrin.

19. (Original): The method of claim 14, wherein collapsing a region of the lung is achieved by blocking air flow into or out of the targeted region.

20. (Original): The method of claim 14, wherein adhering one portion of the collapsed region to another is achieved by administering a solution comprising fibrinogen and a fibrinogen activator.

21. (Original): The method of claim 20, wherein the fibrinogen activator is thrombin.

22. (Original): The method of claim 21, wherein the fibrinogen comprises 3-12% fibrinogen.

23. (Original): The method of claim 22, wherein the fibrinogen comprises approximately 10% fibrinogen.

24. (Original): The method of claim 14, wherein adhering one portion of the collapsed region to another is achieved by administering fibrin.

25. (Original): The method of claim 14, wherein promoting fibrosis in or around the collapsed region of the lung is achieved by administering a polypeptide growth factor.

26. (Original): The method of claim 25, wherein the polypeptide growth factor is a fibroblast growth factor (FGF).

27. (Original): The method of claim 26, wherein the FGF is basic fibroblast growth factor (bFGF).

28. (Original): The method of claim 25, wherein the polypeptide growth factor is transforming growth factor-beta (TGF-β).

29. (Original): The method of claim 20, further comprising administration of factor XIIIa transglutaminase.

30. (Original): The method of claim 24, further comprising administration of factor XIIIa transglutaminase.

31. (Original): The method of claim 14, further comprising reducing the risk of infection by administration of an antibiotic.

32. (Original): The method of claim 31, wherein the antibiotic is administered together with fibrinogen, fibrin, or a fibrinogen activator.

33. (Original): The method of claim 14, further comprising, prior to collapsing a region of the lung, inflating the region with absorbable gas.

34. (Original): The method of claim 33, wherein the absorbable gas is at least 90% oxygen.

35.-54. (Canceled)

55. (New): A method for reducing lung volume in a patient, the method comprising introducing a material into a target region of a lung; and collapsing the target region to reduce the volume of the lung, wherein the material comprises an anti-surfactant, or an adhesive, or a combination thereof.

56. (New): The method of claim 55, wherein the target region is collapsed by blocking air flow into and out of the target region using a balloon catheter or other method or device.

57. (New): A method for reducing air flow into and out of a region of a lung, the method comprising introducing a material into a target region of a lung.

58. (New): The method of claim 57, wherein the material is introduced through a trachea or a smaller airway of a patient.

59. (New): The method of claim 57, wherein the target region of the lung comprises a diseased alveolar region, at least one lung lobe, at least one branch of the bronchial tree, at least one or more bronchi and/or bronchioles, a lung subsegment, an alveolus, a small airway in the lung, or a combination of two or more thereof.

60. (New): A method of preparing a diseased region of a lung for volume reduction, the method comprising introducing a material into a diseased region of a lung, wherein the material is introduced via a bronchoscope, and wherein the material comprises an anti-surfactant, an adhesive, another biocompatible reagent, or a combination of two or more thereof.

61. (New): A method for promoting stable lung collapse, the method comprising introducing a material into a target region of a lung and blocking air flow into and out of the target region under conditions to promote collapse and/or fibrosis or scarring of the target region.

62. (New): A method of treating emphysema, the method comprising introducing a material into a target region of a lung under conditions to promote collapse and/or fibrosis or scarring within the target region, wherein the material is introduced non-surgically.

63. (New): The method of claim 58 or 59, wherein the material comprises an anti-surfactant, or an adhesive, or a combination thereof.

64. (New): A method of inducing stable lung volume reduction, the method comprising collapsing a lung region under conditions to promote fibrosis or scarring in the collapsed region.

65. (New): The method of claim 64, wherein the fibrosis or scarring prevents subsequent partial or complete re-expansion of the target region.

66. (New): The method of claim 61 or 62, wherein the target region comprises a diseased alveolar region, at least one lung lobe, at least one branch of the bronchial tree, at least one or

more bronchi and/or bronchioles, a lung subsegment, an alveolus, a small airway in the lung, or two or more thereof.

67. (New): The method of claim 60, wherein the material is removed by suction.

68. (New): The method of claim 64, wherein fibrosis or scarring is promoted by introducing a composition comprising at least one growth factor into a target region of the lung.

69. (New): The method of claim 57, further comprising occluding a trachea, bronchus, bronchiole or other airway of the lung.

70. (New): The method of claim 57, further comprising occluding the target region and filling the occluded region with an absorbable gas prior to collapsing the target region.

71. (New): The method of claim 68, wherein the composition is introduced through a trachea or a smaller airway of a patient.

72. (New): The method of claim 57, wherein the material comprises one or more agents selected from the group consisting of an agent that increases the surface tension of fluids lining the alveoli, an agent the adheres one portion of a tissue to another, an agent that promotes chemotaxis, an agent that promotes collagen deposition, an agent that causes inflammation, an ECM-like agent, a pro-fibrotic agent, an agent that causes vasoconstriction, an agent that modulates endothelial cell response, a polymerizing agent, a pro-apoptotic agent, an agent that promotes fibrosis or scarring, other agents that act mechanically and/or biologically, and other biocompatible reagents.

73. (New): The method of claim 64, wherein first and second components of a glue are separately applied to portions of the lung region, and wherein the first and second components of the glue promote adhesion between the portions of the lung region.